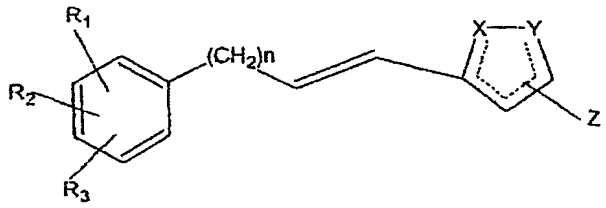
CLAIMS

1. A method for synthesizing derivatives corresponding to formula (I):



(I)

in which:

R_1, R_2, R_3, at the 2, 3, 4, 5 or 6 position of the phenyl ring, which are identical or different, are chosen from: a hydrogen atom; C_1-C_6 alkyls; C_2-C_6 alkenyls; C_2-C_6 alkynyls; halogens, C_1-C_6 haloalkyls; -OH; the groups -OR', -SH, -SR', -SeH, -SeR', -C(O)R', -NHC(O)R', -C(S)R', -NHC(S)R', -CN in which R' represents a group chosen from C_1-C_6 alkyls, C_2-C_6 alkenyls, C_2-C_6 alkynyls; the groups -C(O)OR", -OC(O)R", -NR"R'" in which R" and R'", which are identical or different, represent a group chosen from a hydrogen atom, C_1-C_6 alkyls, C_2-C_6 alkenyls, C_2-C_6 alkynyls;

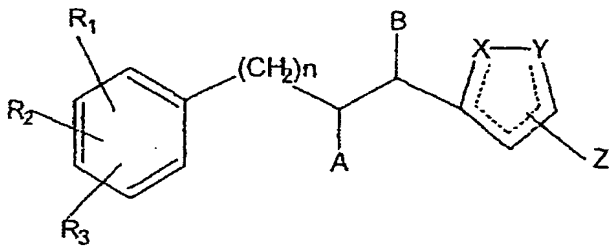
X and Y represent a pair of atoms chosen from: (NR_4, N) (pyrazole ring), (O, N) (isoxazole ring), (S, N) (isothiazole ring), R_4 being chosen from: a hydrogen atom; C_1-C_6 alkyls; the groups CH_2-OR_5, the groups C(O)OR_5 in which R_5 is chosen from a hydrogen atom, a C_1-C_6 alkyl group, a benzyl group;

the heterocycle is linked to the phenyl ring via its 3- or 5- position in the case of the pyrazole ring, via its 5-position in the case of the isoxazole and isothiazole rings;

n represents an integer chosen from 0, 1, 2, 3, 4, 5 and 6;

Z, at the 3- or 4-position of the isoxazole,

pyrazole or thioxazole ring, represents a group chosen from: a hydrogen atom; C_1-C_6 alkyls; C_2-C_6 alkenyls; C_2-C_6 alkynyls; halogens, C_1-C_6 haloalkyls; -OH; the groups -OR', -SH, -SR', -SeH, -SeR', -C(O)R', -NHC(O)R', -C(S)R', -NHC(S)R', -CN in which R' represents a group chosen from C_1-C_6 alkyls, C_2-C_6 alkenyls, C_2-C_6 alkynyls; the groups -C(O)OR", -OC(O)R", -NR"R'" in which R" and R'", which are identical or different, represent a group chosen from a hydrogen atom, C_1-C_6 alkyls, C_2-C_6 alkenyls, C_2-C_6 alkynyls, this method being characterized in that it comprises at least one step consisting in treating the product corresponding to formula (II) below in which R_1, R_2, R_3, X, Y, Z and n have the same definition as in formula (I) above, in alcohol in the presence of a base to give the product of formula (I):



(II)

A and B being chosen such that one of A and B is H, the other being -OH.

2. The method as claimed in claim 1, characterized in that at least one of the conditions below is met:

R_1, R_2, R_3 are at the 3-, 4- or 5-position of the phenyl ring;

R_1, R_2, R_3 are chosen from: a hydrogen atom; C_1-C_6 alkyls; halogens; C_1-C_6 haloalkyls; -OH; the groups -OR', in which R' represents a group chosen from C_1-C_6 alkyls; the groups -OC(O)R", in which R" represents a group chosen from a hydrogen atom, C_1-C_6 alkyls;

X = O; Y = N;

n = 0;

Z is at the 3-position of the heterocycle,

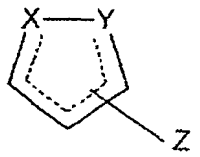
Z represents a group chosen from: C_1-C_6 alkyls; halogens; C_1-C_6 haloalkyls.

3. The method as claimed in claim 1 or claim 2, characterized in that the conditions below are met:

A = OH, B = H.

4. The method as claimed in claim 2 or claim 3, characterized in that at least one of the conditions below is met:

the heterocycle represented by formula:



is a Z-substituted derivative of 5-isoxazole;

R_1 at the 3-position is a tert-butyl group;

R_2 at the 4-position is a hydroxyl group;

R_3 at the 5-position is a tert-butyl group;

Z at the 3-position is a methyl group.

5. The method as claimed in claim 4, characterized in that the product (I) is (E)-5-[2-(3,5-di-tert-butyl-4-hydroxyphenyl)vinyl]-3-methylisoxazole.

6. The method as claimed in any one of the preceding claims, characterized in that the alcohol in which the dehydration and the crystallization are performed is ethanol, methanol or isopropyl alcohol.

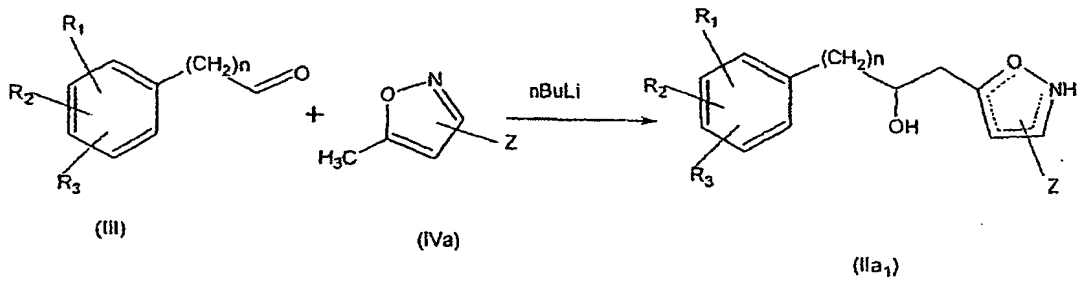
7. The method as claimed in any one of the preceding claims, characterized in that the base which is added to the alcohol is sodium hydroxide in the form of an aqueous solution.

8. The method as claimed in the preceding claim, characterized in that the aqueous sodium hydroxide solution is a solution having a concentration of between 0.1M and 5M, advantageously between 0.5M and 4M, still more advantageously between 1M and 3M.

9. The method as claimed in any one of the preceding claims, characterized in that it comprises the following steps: dissolution of the product (II) in alcohol under reflux; addition of the base until the

compound (I) precipitates; addition of alcohol, still under reflux until the precipitate is solubilized; cooling of the solution which causes crystallization of (I); filtration and washing of the crystals.

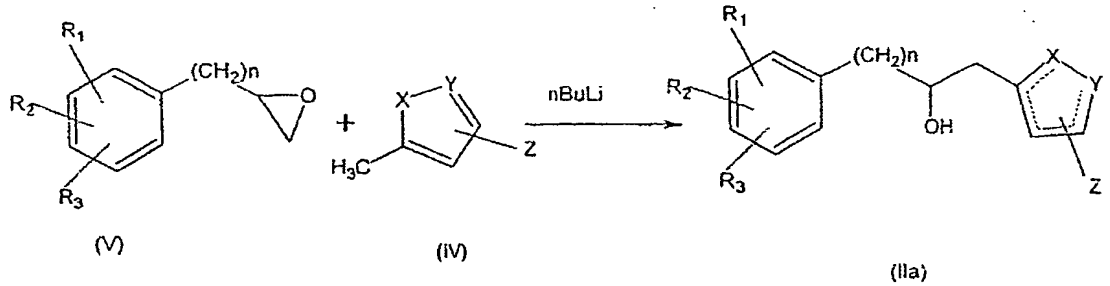
10. The method as claimed in claim 1, comprising a step for preparing a compound of formula (II) as defined in claim 3, and in which X = O and Y = N, characterized in that the aldehyde (III) and the lithium salt of the heterocycle (IVa) are reacted in order to obtain the derivative (IIa_1):



(III) (IVa) (IIa_1)

R_1, R_2, R_3 and Z having the same definition as in formula (II).

11. The method as claimed in claim 1, comprising a step for preparing a compound of formula (II) as defined in claim 3, and in which (X, Y) represents (S, N) or (NR_4, N), R_4 having the same definition as in formula (II), characterized in that a phenyloxirane (V) derivative is reacted with the lithium salt of the 5-isothiazole derivative (compound (IV) with X = S and Y = N) or with the lithium salt of the 5-pyrazole derivative (compound (IV) with (X, Y) = (NR_4, N)), according to the scheme below:



(V) (IV) (IIa)